



On Call. On Time. On Target.

THE GATEWAY ENGINEERS, INC.

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October 19, 2012  
C-17749-1219

ALCOSAN  
3300 Preble Avenue  
Pittsburgh, PA 15233

ATT: Tim Prevost, Manager of Wet Weather Programs

RE: Comments to the ALCOSAN Wet Weather Report  
Whitehall Borough

Dear Tim,

On behalf of Whitehall Borough, we have reviewed the ALCOSAN Wet Weather Report. We offer the following comments:

1. Section 1.3 Page 1-9 reads as follows – “This WWP addresses the elimination of sanitary sewer overflows and the control of combined sewer overflows from ALCOSAN’s Conveyance and Treatment Systems, including overflow structures located at the points of connection with the municipal collection systems. The Plan does not directly address the elimination or control of overflows within the municipal collection systems. However it provides for the hydraulic capacity to accept additional wet weather flows from the municipalities which may be conveyed to the ALCOSAN Conveyance and Treatment System pursuant to municipal feasibility studies to be complete under separate compliance orders”

Comments:

The affordability analysis indicates that not all projects can be completed under the Selected Plan, and therefore not all connections from the municipal systems to the ALCOSAN system will be updated.

The Recommended Plan delays the improvements in the Saw Mill Run Basin. How will additional flows sent to ALCOSAN’s Points of Connection be handled if the Municipalities update their systems, but ALCOSAN does not? Will the Saw Mill Run Basin system users pay the same rates as users in the basins that will have the improvements projects completed within them?

The Recommended Plan delays the improvements upstream of M-29 in the Upper Mon Basin. How will additional flows sent to ALCOSAN’s Points of Connection be handled if the municipalities update their systems but ALCOSAN does not? Will the Upper Mon Basin system users pay the same rates as users in the basins that will have

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MUNICIPAL ENGINEERING • LAND DEVELOPMENT  
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MISSION STATEMENT

TO HELP OUR CLIENTS REACH A HIGHER  
LEVEL OF SUCCESS THROUGH KNOWLEDGE,  
EXPERIENCE AND RESPONSIVENESS.



October 19, 2012

C-17749-1219

Page 2

the improvements projects completed within them? Will the rates be delayed in full to these users until the improvements are completed upstream of M-29?

2. Section 9.3.3 Page 9-80 reads as follows – “In some cases, even after the follow-through coordination was completed, information from a particular municipality was still incomplete, was judged to be unreliable or a preferred control strategy could not be clearly identified. In these cases, the basin planner assumed a control strategy, assumed a level of control and the associated costs, and/or identified areas within the existing municipal sewer system that had adequate hydraulic capacity to convey peak wet weather flow to the ALCOSAN system and where no capital improvements or control facilities were required.” This same assumption is stated throughout the report.

Comment:

Please refer to the “Complex Sewershed MH-89 Draft POC Feasibility Study Submittal” letter dated July 25, 2012 in which Whitehall Borough indicated that they will be conveying all flow to ALCOSAN via an upsized sewer. ALCOSAN’s assumption was that relief sewers would be implemented.

3. Section 10.1 Page 10-2 reads as follows – “This 2026 Plan assumes municipalities will implement all of their planned improvements by 2026 to eliminate municipal SSOs and control municipal CSOs by 2026, bringing substantial improvement to local tributaries streams.”

Comment:

The affordability analysis indicates that not all projects can be complete under the Selected Plan. Therefore not all SSOs will be eliminated in areas where no improvements are being proposed to be completed by ALCOSAN by 2026 specific to Whitehall Borough for Saw Mill Run (MH-89) and Upper Mon (M-42, beyond M-29). How will these SSOs be handled? If every municipality conveys additional flows to ALCOSAN but no work is being completed in the basin, will new or increased SSOs be created?

4. Section 11 indicates throughout that municipalities will start construction immediately following the approval of the Feasibility Plans.

Comment:

If the municipalities complete their construction projects prior to ALCOSAN’s projects, how will the additional flows be handled? If ALCOSAN’s infrastructure cannot (due to not being constructed or not being part of the Recommended Plan)



October 19, 2012  
C-17749-1219  
Page 3

accept the flows, municipal flows could create new hydraulic issues to their systems or downstream Municipalities.

5. The DWWP assumes an annual cost per municipality of \$210 per customer based on a uniform distribution of all the municipal costs. These numbers will be further refined based on debt service, annual operation and maintenance costs, financing options, etc. as part of the financial impact section of the Feasibility Study Report due in July 2013.

Sincerely,  
THE GATEWAY ENGINEERS, INC.

Michael Skinner, P.E.  
Project Manager

Enclosure

cc: Whitehall Borough Council  
James E. Leventry, Whitehall Borough Manager  
Irving S. Firman, Tucker Arensburg, P.C., Whitehall Borough Solicitor  
Ruthann L. Omer, P.E., Whitehall Borough Engineer  
Arletta Scott-Williams, Executive Director, ALCOSAN  
Jan Oliver, Director of Regional Conveyance, ALCOSAN  
Mike Lichte, Manager of Planning, ALCOSAN



# Borough of Whitehall

A HOME RULE COMMUNITY

FOUNDED 1948

July 31, 2012

ALCOSAN  
3300 Preble Avenue  
Pittsburgh, PA 15233

ATTN: Tim Prevost, Manager of Wet Weather Programs

RE: Complex Sewershed M-42 Draft POC Feasibility Study Acknowledgement  
Borough of Whitehall

Dear Mr. Prevost:

ALCOSAN by letter dated November 7, 2011 requested that, for each listed complex sewershed, the participating municipalities submit a single comprehensive draft Feasibility Study designated by Point of Connection and to acknowledge that the contributing municipalities understand the current status of evaluation of multi-municipal leading alternative wet weather plan solutions and associated costs.

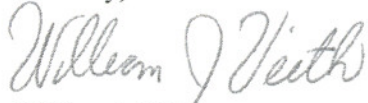
The contributing municipalities have met on a regular basis and have discussed the scenarios as presented in PWSA's "Streets Run Sewershed Narrative Summary of CSO/SSO Controls and Costs." The preferred multi-municipal lead alternative is described below.

POC:	M-42
Lead Municipality:	PWSA (City of Pittsburgh)
Lead Alternative:	Increased Conveyance via Parallel Relief Sewers with Diversion Chamber Modification and Screening
Design Conditions:	2-Year Storm; 0, 4, or 10 Permitted Overflows
Preliminary Capital Costs:	\$37.375 M – 0 Overflows \$35.926 M – 4 Overflows \$29.409 M – 10 Overflows
Future Flow Requirements:	56.96 MGD (2-Year, Typical) - 0 Overflows 53.70 MGD (2-Year, Typical) - 4 Overflows 48.28 MGD (2-Year, Typical) - 10 Overflows

This acknowledgement does not preclude further study, consideration of additional alternatives, and final recommendation and acceptance of same prior to the COA (or ACO) mandated submission of their Feasibility Study by July 31, 2013 or as additional information material to our deliberations may become available.

The Borough encourages any dialogue or questions you may have regarding our understanding of the planning information included herein related to the M-42 Draft POC Feasibility Study Submittal.

Sincerely,

A handwritten signature in cursive script that reads "William J. Veith".

William J. Veith  
Whitehall Borough Council President



# Borough of Whitehall

A HOME RULE COMMUNITY

FOUNDED 1948

July 31, 2012

ALCOSAN  
3300 Preble Avenue  
Pittsburgh, PA 15233

ATTN: Tim Prevost, Manager of Wet Weather Programs

RE: Complex Sewershed MH-89 Draft POC Feasibility Study Submittal  
Borough of Whitehall  
Borough of Brentwood  
Borough of Castle Shannon  
Pittsburgh Water and Sewer Authority

Dear Mr. Prevost:

ALCOSAN by letter dated November 7, 2011 requested that, for each listed complex sewershed, the participating municipalities submit a single comprehensive draft Feasibility Study designated by Point of Connection and to acknowledge that the contributing municipalities understand the current status of evaluation of multi-municipal leading alternative wet weather plan solutions and associated costs.

The municipalities involved have met on a regular basis and have discussed the multi-municipal lead alternative as described below.

**POC:** MH-89

**Description of Sewershed:**

Refer to attached existing conditions drawing (Sheet C-101) for Sewershed limits. The Sewershed consists of approximately 1,668 acres (154 acres of the City of Pittsburgh, 64 acres of the Borough of Castle Shannon, 369 acres of the Borough of Brentwood and 1081 acres of the Borough of Whitehall). The Sewershed consists of approximately 566.5 inch-miles of Gravity Sewers (62.5 inch-miles in the City of Pittsburgh, 15.1 inch-miles in the Borough of Castle Shannon, 142.7 inch-miles in the Borough of Brentwood and 346.2 inch-miles in the Borough of Whitehall). The Sewershed consists of approximately 335,856 LF of Gravity Sewers (28,903 LF from the City of Pittsburgh, 9,953 LF from the Borough of Castle Shannon, 86,207 LF from the Borough of Brentwood and 210,793 LF from the Borough of Whitehall).

The Sewershed consists of approximately 4,896 users (418 users in the City of Pittsburgh, 207 users in the Borough of Castle Shannon, 1,538 users in the Borough of Brentwood and 2,733 users in the Borough of Whitehall). Portions of the sewershed in the City of Pittsburgh operate as a combined sewer system while as the remainder of the sewershed is separate sewers.

**Description of Deficiencies:**

Refer to attached existing conditions drawing (Sheet C-101) for limits of existing capacity deficiencies. Capacity issues have historically existed along main trunklines in the Boroughs of Whitehall and Brentwood. Upstream of the Whitehall/PWSA 1 (LBs\_1087132) interconnection, the trunkline shows capacity deficiencies along Provost Road, Stewart Avenue, Weyman Road, through the Shoppes at Castle Village and along Spring Meadow Court. Upstream of the Whitehall/PWSA 2 (LBs\_1305607) interconnection, the trunkline shows capacity deficiencies along Route 51/Saw Mill Run Boulevard, Greenlee Road and Victoria Drive.

**Lead Municipality:**

Borough of Whitehall

**Lead Alternative:**

Peak flow rates at the POC were developed utilizing the ALCOSAN model and the resulting summer and winter hydrographs are attached for reference. The 3RWW Alternatives Costing Tool (ACT) was utilized to develop cost estimates for the four (4) alternatives investigated. The resulting cost estimates for each of the four (4) options investigated are attached for reference. Drawings depicting each of the four (4) options are attached for reference (Sheet OPT-1 thru Sheet OPT-4). The various options considered are as follows:

Option #1 will increase conveyance via combination of upsized gravity sewers and a new dedicated parallel sewer conveying all flow from the Boroughs of Whitehall, Brentwood and Castle Shannon to the POC. Gravity sewers will be upsized in the Boroughs of Whitehall and Brentwood down to the interconnections between Whitehall and the Pittsburgh Water and Sewer Authority (PWSA). These interconnections are Whitehall/PWSA 1 (LBs\_1087132) and Whitehall/PWSA 2 (LBs\_1305607). Beyond these interconnections a new dedicated parallel sewer will be run down to the ALCOSAN POC MH-89. The existing sewers in PWSA will then function as a standalone system. For this option the conveyance will be increased to accommodate a 10-Year Summer Storm.

**Additional Alternatives Analyzed:**

Option #2 utilizes the same combination of upsized gravity and new dedicated parallel sewers as outlined in Option #1. For this option the conveyance will be increased to accommodate a 2-Year Summer Storm instead of a 10-Year Summer Storm.

Option #3 will increase conveyance via installation of parallel relief sewers to convey all flow from the Borough of Whitehall, Borough of Brentwood, Borough of Castle Shannon and the City of Pittsburgh.

The existing trunkline will be lined in the areas where the parallel relief sewer is installed. For this option the conveyance will be increased to accommodate a 10-Year Summer Storm.

Option #4 utilizes the same combination of lining and parallel relief sewers as outlined in Option #3. For this option the conveyance will be increased to accommodate a 2-Year Summer Storm instead of a 10-Year Summer Storm.

All options above require modifications to the three (3) existing PWSA regulator structures located in the combined portion of the MH-89 sewershed located within the City of Pittsburgh. These structures were analyzed utilizing the ALCOSAN model to determine what changes needed to be made to establish the 0, 4 and 10 overflows per typical year levels of control. Under all four (4) options investigated, all three (3) regulator structures will be modified and screening will be installed. PWSA provided anticipated costs of \$450,000 per regulator structure for modifications and screenings.

**Alternatives Summary:**

**Design Option #1:** 10-Year Storm, Summer – (Upsizing Existing Gravity Sewers and Installation of a new Dedicated Parallel Sewer)

Preliminary Capital Costs: \$18.0 M  
Preliminary Present Worth Costs: \$8.5 M  
Future Flow Requirements: 43.6 MGD

**Design Option #2:** 2-Year Storm, Summer – (Upsizing Existing Gravity Sewers and Installation of a new Dedicated Parallel Sewer)

Preliminary Capital Costs: \$16.4 M  
Preliminary Present Worth Costs: \$7.8 M  
Future Flow Requirements: 30.0 MGD

**Design Option #3:** 10-Year Storm, Summer – (Installing Parallel Gravity Sewers and Lining Existing Sewers where Parallel Sewers are Installed)

Preliminary Capital Costs: \$20.3 M  
Preliminary Present Worth Costs: \$9.5 M  
Future Flow Requirements: 43.6 MGD

**Design Option #4:** 2-Year Storm, Summer – (Installing Parallel Gravity Sewers and Lining Existing Sewers where Parallel Sewers are Installed)

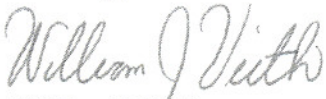
Preliminary Capital Costs: \$19.1 M  
Preliminary Present Worth Costs: \$9.0 M  
Future Flow Requirements: 30.0 MGD



This acknowledgement does not preclude further study, consideration of additional alternatives, and final recommendation and acceptance of same prior to the COA (or ACO) mandated submission of their Feasibility Study by July 31, 2013 or as additional information material to our deliberations may become available.

The contributing municipalities encourage any dialogue or questions you may have regarding any of the planning information included herein related to the MH-89 Draft POC Feasibility Study Submittal.

Sincerely,

A handwritten signature in cursive script that reads "William J. Veith".

William J. Veith  
Whitehall Borough Council President